Seminal papers in distributed systems have been authored by Mani Chandy and Leslie Lamport [72],

by Leslie Lamport [205–207], Hoare [168], and Milner [244]. The collection of contributions with the

title Distributed systems, edited by Sape Mullender, includes some of these papers.

Petri nets were introduced in [291]. An in-depth discussion of concurrency theory and system modeling

with PNs can be found in [292]. The brief discussion of distributed systems leads to the observation

that the analysis of communicating processes requires a more formal framework. Hoare realized that a

language based on execution traces is insufficient to abstract the behavior of communicating processes

and developed communicating sequential processes (CSPs) [168]. More recently, Milner initiated an

axiomatic theory called the Calculus of Communicating Systems (CCS) [244]. Process algebra is the

study of concurrent communicating processes within an algebraic framework. The process behavior is

modeled as a set of equational axioms and a set of operators. This approach has its own limitations, the

real-time behavior of the processes, so true concurrency still escapes this axiomatization.

The text Computer networks: a top-down approach featuring the internet, by J. A. Kurose and K.

W. Ross is a good introduction to networking. A recent text of Saltzer and Kaashoek [312] covers basic

concepts in computer system design.